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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/001,347	10/26/2001	Rajnish Ballaw	5343	3368

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EXAMINER

SHOSHO, CALLIE E

ART UNIT

PAPER NUMBER

1714

DATE MAILED: 09/25/2003

37

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/001,347	BATLAW, RAJNISH
Examiner	Art Unit	
Callie E. Shosho	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) 11-22 and 31-40 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-10 and 23-30 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) 1-40 are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
  - a)  The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                          | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                 | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. | 6) <input type="checkbox"/> Other: _____.                                   |

**DETAILED ACTION**

**Election/Restrictions**

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-10 and 23-30, drawn to gravure ink, classified in class 523, subclass 160.
  - II. Claims 11-16 and 31-38, drawn to printed substrate, classified in class 428, subclass 195.
  - III. Claims 17-22 and 39-40, drawn to method of coloring a paper, a polymeric film, or textile substrate, classified in class 427, subclass 372.2.
2. The inventions are distinct, each from the other because:
  - (a) Inventions I and III are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the product as claimed can be used in a materially different process of using that product such as process comprising only providing a substrate and contacting the substrate with ink, i.e. no heating. Further, the process for using the product as claimed can be practiced with another materially different product such as ink jet ink, offset ink, or black gravure ink which exhibits hue angle greater than 42, L\* less than 26, a\* greater than 1.4, and b\* greater than 0.7.

(b) Inventions II and III are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the product as claimed can be made by another and materially different process such as providing substrate, heating substrate, and then contacting substrate with ink or process comprising only providing a substrate and contacting the substrate with ink, i.e. no heating.

(c) Inventions I and II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different functions and effects. Specifically, invention I is an ink composition with the function of coating substrate with the effect of producing a printed substrate while invention III is a substrate which functions as printed material with the effect of exhibiting an image.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification and/or their divergent subject matter, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with William Parks on 1/21/03 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-10 and 23-30. Affirmation of this election must be made by applicant in replying to this Office action. Claims 11-22 and 31-40 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

**Claim Rejections - 35 USC § 102**

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Harris et al. (U.S. 5,886,091) taken in view of the evidence in Krutak et al. (U.S. 5,194,463).

Harris et al. disclose gravure ink comprising pigment, solvent, resin, and polymeric colorant, i.e. colored polyurethane obtained from alkylene containing chromophore (col.3, lines 3-5, 40-43 and 46-49, col.4, lines 10-25 and 62-65, and col.5, lines 16-65).

With respect to the alkylene containing chromophore, Harris et al. refers to Krutak et al. for specific alkylene containing chromophores. Krutak et al. disclose alkylene containing chromophores which exhibit maximum absorption at, for instance, 535 nm and 599 nm (examples 16 and 19).

In light of the above, it is clear that Harris et al. anticipate the present claims.

7. Claims 1-4 and 7-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Harris et al. (U.S. 5,886,091) taken in view of the evidence in Cross et al. (U.S. 4,284,729).

Harris et al. disclose gravure ink comprising pigment, solvent, resin, and polymeric colorant, i.e. colored polyurethane obtained from polyoxyalkylene containing chromophore (col.3, lines 3-5, 40-43 and 46-49, col.4, lines 10-25 and 62-65, and col.5, lines 16-65).

With respect to the polymeric colorant, Harris et al. refers to Cross et al. for specific polyoxyalkylene containing chromophores. Cross et al. disclose polyoxyalkylene colorant comprising nonionic chromophore which comprises polyoxyalkylene chains wherein the majority of chains are polyethylene oxide, polypropylene oxide, and/or polybutylene oxide (col.1, line 53-col.2, line 39). Given that Harris et al. disclose colorant identical to that presently claimed, it is clear that the colorant would inherently exhibit maximum absorption at same wavelength as presently claimed.

In light of the above, it is clear that Harris et al. anticipate the present claims.

**Claim Rejections - 35 USC § 103**

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
9. Claims 1-10 and 23-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harris et al. (U.S. 5,886,091) in view of Baumgartner et al. (U.S. 4,812,141).

Harris et al. disclose gravure ink comprising black pigment, solvent, resin, and polymeric colorant, i.e. colored polyurethane obtained from polyoxyalkylene containing chromophore (col.3, lines 3-5, 40-43 and 46-49, col.4, lines 10-25 and 62-65, and col.5, lines 16-65).

The difference between Harris et al. and the present claimed invention is the requirement in the claims of specific type of polymeric colorant.

Harris et al. disclose colored polyurethane obtained from polyoxyalkylene containing chromophore but does not disclose specific polyoxyalkylene containing chromophore as presently claimed.

Baumgartner et al., which is drawn to gravure ink, disclose the use of colored thermoplastic resin which comprises colorant in the form of alkyleneoxy substituted chromophore wherein the chromophore is nonionic and the polyoxyalkylene chains contain ratio of polypropyleneoxy to polyethyleneoxy of, for instance, 3:1. The motivation for using such colorant is to reduce color migration (col.1, lines 10-15 and 59-64, col.3, line 55-col.4, line 50, Table 9, and Example 27). Given that Baumgartner et al. disclose alkyleneoxy substituted

chromophore identical to that presently claimed including same types and amounts of different polyoxyalkylene chains, it is clear that such colorant would intrinsically exhibit maximum absorption at same wavelength as presently claimed.

Further, given that Harris et al. in combination with Baumgartner et al disclose ink identical to that presently claimed, it is clear that such ink would intrinsically possess same L\*, a\*, b\*, and hue angle as presently claimed.

In light of the motivation for using specific polyoxyalkylene containing chromophore disclosed by Baumgartner et al. as described above, it therefore would have been obvious to one of ordinary skill in the art to use such polyoxyalkylene containing chromophore in Harris et al. in order to produce ink which exhibits reduced color migration and thereby arrive at the claimed invention.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hunt et al. (U.S. 6,369,128) disclose gravure ink comprising solvent, polyoxyalkylene substituted colorant, and resin, however, there is no disclosure or suggestion of pigment or dye.

Harris et al. (U.S. 6,610,131) disclose ink exhibiting L\*, a\*, and b\* as presently claimed, however, Harris et al. is drawn to flexographic ink not gravure ink as presently claimed. Further, there is no disclosure of black pigment or black dye as presently claimed.

Sacripante et al. disclose ink comprising water, pigment, resin, and polymeric colorant known under the tradename Reactint Violet X80 which is identical to the polymeric colorant

used in the present invention, however, Sacripante et al. is drawn to ink jet ink not gravure ink as presently claimed.

Stephens et al. (U.S. 5,955,523) disclose ink comprising colored thermoplastic resin wherein the colorant comprises polyoxyalkylene-substituted chromophores.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 703-305-0208. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 703-306-2777. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

*Callie Shosho*  
Callie E. Shosho  
Primary Examiner  
Art Unit 1714

CS  
9/10/03